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Delivering Coherent ICT Policies in Developing Countries

We could trace the origins of information and communication technology (ICT) policies in developing countries to the 1970s – for example in India – when there were a few focused on helping develop the local IT industry. Or one could go decades further back to find roots in policies on media and telecommunications. However, documents called "national ICT policy" only really started to be made in the 1990s and early 2000s.

What have they achieved?

As measured by infrastructure diffusion, they have achieved quite a lot. International Telecommunication Union figures show, in 1998, one of every 100 inhabitants in a developing country was an Internet user. By 2008, that figure had risen to 15 per 100, and annual growth rates were just over 20 percent per year. The rise for mobile telephony has been even greater: the number of subscriptions was equivalent to 2 percent of the developing world's population in 1998. Ten years later in 2008, that figure had risen to 55 percent, with an annual growth rate of 26 percent per year.

At the micro-level, we can identify hundreds of research documents and thousands of cases demonstrating the beneficial contribution of ICTs. Not just in terms of information delivered, but money saved, income generated, skills created, and new livelihoods constructed. Yet at the macro-level, the effect of ICTs in developing countries is harder to detect.

In 1987, Robert Solow famously said – of the macro-impact of IT on the US economy – "You can see the computer age everywhere but in the productivity statistics"; what came to be called the "productivity paradox". Could there be a similar "development paradox": that in developing countries you can see ICTs everywhere but in the development statistics?

A quick response might be that there is no paradox. That ICTs are not "everywhere" in developing countries – the only technology that comes close is mobile phones being used largely for social purposes. That the diffusion of ICTs has been very recent, leaving little time for them to embed and have an impact: computers are argued to have taken four decades to change US business processes sufficiently to show up in overall productivity figures. And perhaps that development statistics are improving, though our research is not yet good enough to recognise ICTs' contribution.

Nonetheless, ICTs have not been the magic bullet for development that some were claiming or predicting in the late 1990s, and it is worth asking why. One obvious place to look is at the ICT policies that have sought to trigger a development impact. The UK Development Studies Association's Information, Technology and

Development study group therefore organised a one-day workshop in March 2010 on "ICT Policy in Developing Countries", hosted by the University of Manchester's Centre for Development Informatics.

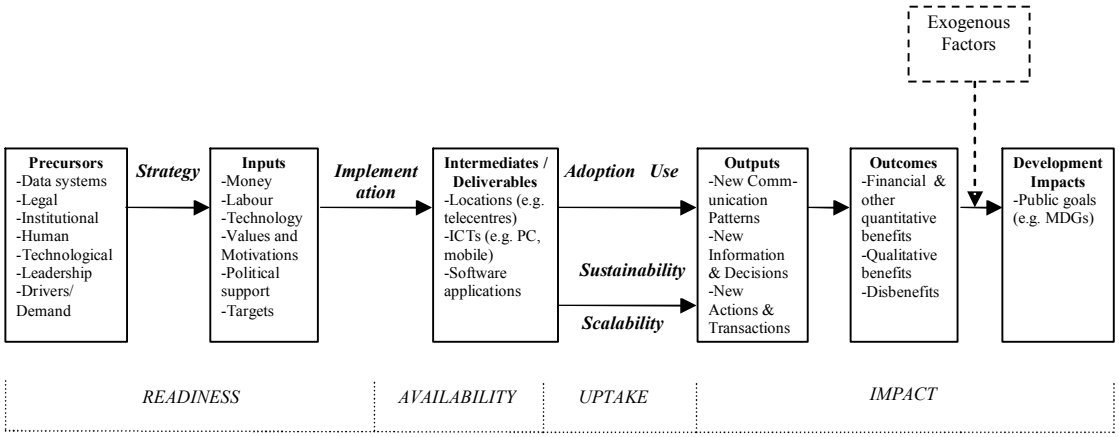
The seven policy presentations were analysed through the lens of policy coherence – an important current focus for development policy, with a particular lead being taken by the OECD. Taking this approach, four main issues were identified during the day which can help explain why ICT policy – and, hence, the technologies themselves – are not making quite the development contribution that they could do.

Coherence with Main Development Challenges

Looking for the "grand challenges" that developing countries face now and over the coming decades, one would probably identify at least three – economic stability against the threat of global downturn; political stability against the threat of global terrorism and war; environmental stability against the threat of climate change. Yet reviewing the policies presented, few have yet understood or incorporated ICTs' strategic role in providing such stability. One or two are just starting to do so through revisions made in the past year or so. But none have taken a coherent approach that binds together the response to grand challenges through the notion of "resilient development", and which understands the potential for "e-resilience".

Coherence with the ICT4D Value Chain

The ICT-for-development value chain (see below), traces out the way in which digital technologies can make a contribution to development.



A coherent ICT policy is one in which there is both horizontal and vertical coherence. Horizontal coherence requires that ICT policy not only seeks to put in place the elements necessary for "e-readiness" that can make ICTs available, but also ensures there are policies that support the utilisation of ICTs and that the technology has a development impact. Vertical coherence ensures there is policy integration between the elements at each value chain stage.

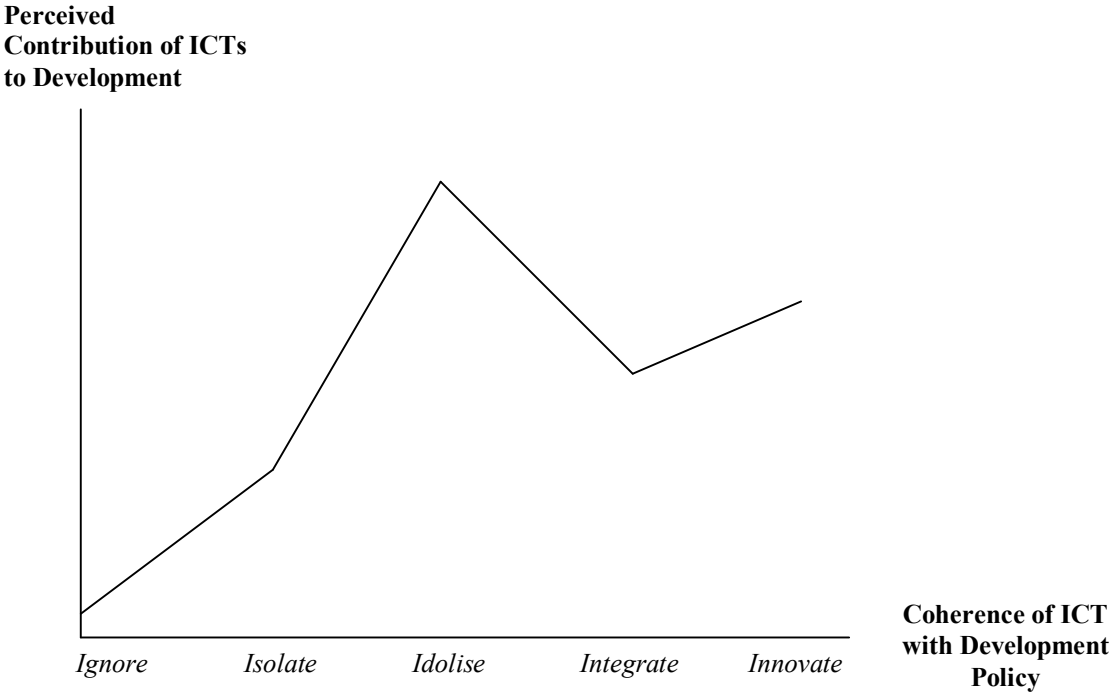
The workshop presentations suggest horizontal coherence has improved over time. Where early policies tended to talk most about putting the precursors in place, later

policies have been more focused on the development impacts of ICTs. However, shortcomings remain around understanding uptake and demand for ICTs (as opposed to just supply), and there is little evidence of systematic impact assessment measures within current policies.

Vertical coherence appears workable where measures fall within the purview of the lead public agency. The appearance of Ministries with IT or ICT in their titles has been a valuable step forward on this in many countries. But such integration is less good across public agencies – a dispiriting example noted at the workshop was the lack of coherence between energy and ICT policy, with electricity shortages still holding back the effective use of new technology in too many developing countries.

Coherence with Development Policy

As shown below, one can trace a "5Is" chronology of the relation between ICT policy and other national development policies, be they overarching (for example as representing by Poverty Reduction Strategy Papers or Five-Year Plans) or sector-specific (such as health, education, enterprise, agriculture, etc). ICTs were initially ignored by policy. Then they were isolated; given their own policy but making no link to development policy. In a few countries, briefly, ICTs were idolised and seen as the key tool for delivering development. And today, best practice is seen as the integration of ICTs into development policies; mainstreaming digital technologies so they become one of many delivery tools.



Some countries still seem to lean towards the "isolate" approach. ICT policy talks about development goals, so development is (in theory) integrated into ICT policy. But the converse is not true: ICTs are not part of development policies. In other countries, there is better two-way integration, but a question mark is arising: does mainstreaming of ICTs truly represent best practice? Or do ICTs have a

transformational potential which means they should not simply disappear as one amongst a list of delivery mechanism bullet points? Hence, the postulated "innovate" approach to policy that would give these new technologies a special recognition for their ability to change development models.

Delivering ICT Policy Coherence

Chef Gordon Ramsay's TV programmes provide valuable lessons for ICT policy. When he seeks to turn around a failing restaurant, he pays attention to the menu, to the way that food is cooked and served, and to the physical environment of both kitchen and dining area. The lesson is that making good, coherent ICT policy is not just about policy content (the menu), it is also about the process of policy making and implementation (cooking and service), and about policy structures (the restaurant).

Structural ICT policy challenges identified at the workshop included the question of whether or not effective representative bodies exist for key stakeholder groups; particularly from within civil society and micro/small enterprise; and the capacity of those institutions charged with policy making and implementation including their ICT-specific competencies. Relational factors also matter: the groups that are included in policy making, and the forums through which they are brought together. The span of such relations may be wide since, as we have seen, ICT4D coherence is not just about the role of development in ICT policy, but also about the role of ICT in development policy.

Process ICT policy challenges include the underlying assumption – partly driven by donors – that there is a single policy-making paradigm; the participative approach; and the hidden agendas that stakeholders bring. These agendas are typically about gaining assets such as money, power or knowledge. But stakeholders also use ICT policy as a means to assert or define their own identity and status. In all cases, the production of an objectively-appropriate ICT policy and – especially – its effective implementation, are likely to suffer.

One can look to specific ideas to address the individual challenges. However, as in the restaurants Gordon Ramsay tries to save, there is a single unifying solution: leadership. In the absence of good leadership, ICT policy is unlikely to deliver, even if some discrete components are functioning. But where ICT policy making and implementation are backed by strong, stable, credible leadership that has a powerful vision for ICTs' development contribution, that contribution is likely to emerge.

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http://www.sed.manchester.ac.uk/idpm/research/publications/wp/di/#sp

Further details of workshop content and presentations can be found at:
http://www.sed.manchester.ac.uk/research/cdi/newsandevents/

Details of OECD work on ICT policy coherence for development can be found at:
www.oecd.org/ict/4d (workshop) and http://www.oecdbookshop.org/oecd/display.asp?K=5KS8HFLQQXMN&LANG=EN (book)